Message

From: Margaret Watkins [mwatkins@grandportage.com]

Sent: 1/20/2015 5:42:47 PM

To: McKim, Krista [mckim.krista@epa.gov]; Sedlacek, Michael [Sedlacek.Michael@epa.gov]; Wagener, Christine

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Subject: Delin, Lorenz, recharge, specific yield for MN

Attachments: Recharge-Delin-Lorenz.pdf

All:

Please find attached the 2007 USGS document describing methods and results for scientifically determining recharge in MN. The range of recharge found in the St. Louis River watershed was between 8.19 inches (20.8 cm) and 11.8 inches (29.97 cm) per year.

Tribal Cooperators do not believe there has been a "Good Faith Effort" to determine impacts from the PolyMet project because the range of recharge, specific yield, specific storage, and hydraulic conductivity, are a small fraction of what has been determined using quality assured data and commonly accepted hydrologic conventions. The "sensitivity analysis" that is proposed for completion this week using a baseflow of 2 cfs for the Partridge River is a good start. However, until the range of recharge, specific yield, and specific storage, that have been scientifically determined for the St. Louis River watershed are modeled, the PolyMet modeling effort cannot be considered a good faith effort to determine Project impacts. The poorly collected data that had to be "interpreted" because the flow data is really old and from a long distance downstream of the Project, and discharge data from the Peter Mitchell pit can only be estimated based on monthly pumping in the pit, resulted in exceptionally low baseflow, recharge, and specific storage inputs to the model(s) that appear to have no basis in peer-reviewed science.

Sincerely,

Margaret Watkins